Strengthening the Foundation of our Future:

Investments to Maximize Risk Reduction

Project Management Institute Awards

Savannah River Salt Waste Processing Facility

FY 2009 Budget Request

Hanford Waste Treatment Plant Construction

Idaho Sodium Bearing Waste Facility

Strengthening the Foundation of our Future:

Investments to Maximize Risk Reduction

EM Program Priorities

- Reducing risk while maximizing compliance with regulatory commitments
  - Constructing waste treatment facilities at our three largest sites to meet our commitments to cleanup tank wastes
  - Consolidating and preparing for disposal of surplus plutonium and spent nuclear fuel
  - Continued shipment of remote handled (RH) and contact handled (CH) transuranic (TRU) waste to the Waste Isolation Pilot Plant
  - Targeted soil and groundwater remediation

- Strengthen existing Program and Project Management capabilities
  - Review and approval of all near-term environmental cleanup project baselines is complete
  - Life-cycle planning estimates developed and independently reviewed
  - Basis for conducting credible and defensible analyses allowing EM to:
    - Engage in meaningful dialogue with regulators, stakeholders, and Tribal nations
    - Assess existing priorities and identify opportunities to complete cleanup work

Strengthening the Foundation of our Future:

Investments to Maximize Risk Reduction

EM Priorities In The FY 2009 Budget Request

- Conduct safe operations
- Support post-closure benefits and liability requirements
- Fully establish the disposition capability for radioactive liquid tank waste, special nuclear materials, and spent nuclear fuel
- Dispose of remote handled (RH) and contact handled (CH) transuranic waste and low-level radioactive waste
- Continue to remediate contaminated soil and groundwater
- Decontaminate and decommission facilities no longer needed

Strengthening the Foundation of our Future:

Investments to Maximize Risk Reduction

FY 2008 vs. FY 2009 Request

Site	FY 2008 Approp[a/]	FY 2009 Request[a/]
Carlsbad	246,599	224,852
Idaho	523,485	447,400
Oak Ridge	505,186	464,872
Paducah	142,219	153,433
Portsmouth	225,026	242,561
Richland	1,028,600	980,088
River Protection	991,203	1,001,008
Savannah River	1,327,663	1,390,693
NNSA Sites	302,661	256,632
Closure Sites	76,846	78,325
West Valley Demonstration Project	55,485	59,000
All Other Sites	80,586	65,868
Headquarters Operations	168,210	132,641
Technology Development & Deployment	21,194	32,389
D&D Fund Deposit	458,787	463,000
Subtotal, EM	6,153,750	5,992,762
Offset	-458,787	-464,762
Total, EM	5,694,963	5,528,000

[a/]Funding for Program Direction and Safeguards and Security activities distributed across sites.

Strengthening the Foundation of our Future:

Investments to Maximize Risk Reduction

Key Program Issues

- Risk-based priorities and regulatory compliance
  - Resource limitations
  - Technology and schedule challenges
  - Utilization of certified near-term baselines to facilitate regulator, stakeholder, and Tribal nation discussions
- Workforce Impacts
  - Funding stability
  - Skill mix
- Increased confidence in life-cycle costs
  - Baselines consistent with Five Year Plan funding profiles
  - New work scope and increased quantities
  - Reasonable assumptions
    - Technical
    - Regulatory
    - Risk recognition

Strengthening the Foundation of our Future:

Investments to Maximize Risk Reduction

Strengthening existing Program and Project Management capabilities

- Improvements reflect many of the National Academy of Public Administration recommendations

- Acquisition and Project Management
  - Maintain and demand highest safety performance
  - Independently verify project scope, costs, schedules, and assumptions
  - Assure effective identification and management of risks
  - Implement more effective acquisition process
  - Improve senior management focus on project execution through review of Earned Value Management System indicators and Quarterly Performance Reviews
  - Striving for “Best in Class” capability

Strengthening existing Program and Project Management capabilities (cont.)

- Program and Project Management
  - Organizational assessment and implementation
  - Strategic Planning
    - Near-term completions
    - Program elements and priorities
    - Out-year optimization/Unfunded liabilities
  - Engineering and Technology
    - Technology Roadmap
    - Technology readiness assessments
  - Human Capital
    - Skill gap analysis – management and technical
    - Certifications
    - Professional Development Corps
    - Human Capital Management Plan implementation

Strengthening the Foundation of our Future:

Investments to Maximize Risk Reduction

Summary

- With the FY 2009 budget request, EM will focus on reducing risk while maximizing compliance with regulatory commitments.

- Strengthen existing Program and Project Management capabilities
  - Review and approval of all near-term environmental cleanup project baselines is complete
  - Life-cycle planning estimates developed and independently reviewed
  - Basis for conducting credible and defensible analyses allowing EM to:
    - Engage in meaningful dialogue with regulators, stakeholders, and Tribal nations
    - Assess existing priorities and identify opportunities to complete cleanup work

BACKUP

Strengthening the Foundation of our Future:

Investments to Maximize Risk Reduction

EM LEGACY CLEANUP SCOPE		
Material	**Primary Locations**	**Current Disposition Plans**
Nuclear Materials		
Enriched Uranium	Idaho, Hanford, Savannah River Site	Blended down to low enrichment material, then used in fabricating fuel for commercial nuclear reactors
Plutonium	Hanford, Savannah River Site, Los Alamos National Laboratory and Lawrence Livermore National Laboratory	Immobilization for disposal at a geologic repository and disposition through MOX (NE facilities)
Depleted Uranium	Portsmouth and Paducah	Conversion of uranium hexaflouride into uranium oxide Disposal of uranium oxide offsite as low level waste
Radioactive Liquid Tank Waste		
Liquid Tank Waste	Idaho, Hanford, Savannah River Site, West Valley (WV)	Separation into low activity and high activity waste streams Immobilization (vitrification) of high activity waste for disposal at a geologic repository Immobilization of low activity waste for onsite disposal
Liquid Waste Tanks	Idaho, Hanford, Savannah River Site, WV	Disposed in place
Spent Nuclear Fuel and Solid Radioactive Waste in Storage		
Spent Nuclear Fuel	Hanford and Savannah River Site	Package in standardized canisters or Multi-Canister Overpacks, or process into High-Level Waste for disposal at a geologic repository
Transuranic Waste	Multiple Sites	Disposal at Waste Isolation Pilot Plant
Low-Level Waste	Multiple Sites	Disposal at commercial facilities or government disposal sites
Contaminated Facilities, Soil and Groundwater		
Nuclear Facilities	Multiple Sites	Decommissioned to the appropriate end state: demolished; entombed; long term surveillance and maintenance; and deactivated/decontaminated for re-use
Radioactive Facilities	Multiple Sites	
Industrial Facilities	Multiple Sites	
Geographic Sites	Multiple Sites	Cleanup to regulatory standards for other uses

Strengthening the Foundation of our Future:

Investments to Maximize Risk Reduction

Corporate Performance Measures

	Performance Measure	Projected to be Completed Through FY 2008	Projected to be Completed Through FY 2009	Percent Projected to be Completed Through FY 2009	Lifecycle Total	Units
	Plutonium packaged for long-term disposition	Measure Complete		100%	6,314	Number of Containers
	Enriched Uranium packaged for disposition	7,278	7,300	98%	7,482	Number of Containers
	Plutonium and Uranium Residues packaged for disposition	Measure Complete		100%	107,828	kg Bulk
	Depleted Uranium and Uranium packaged for disposition	11,860	29,371	4%	692,982	Metric Tons
	Liquid Waste eliminated	0.7 million	1.4 million	2%	88 million	gallons
	Liquid Waste Tanks closed	9	9	4%	239	Number of tanks
	High Level Waste Packaged for final disposition	2,835	3,021	13%	22,464	Number of Containers
	SNF Packaged for final disposition	2,128	2,128	88%	2,418	MT Heavy Metal
	Transuranic Waste dispostioned (Total CH and RH)	53,608	63,738	40%	157,664	cubic meters
	Low Level /Mixed Low Level Waste disposed	1,035,030	1,049,410	76%	1,380,370	cubic meters
	Material Access Areas (MAAs) eliminated	11	11	85%	13	Number of MAAs
	Nuclear Facility D&D Completions	89	92	20%	454	Number of Facilities
	Radioactive Facility D&D Completions	352	362	40%	902	Number of Facilities
	Industrial Facility D&D Completions	1,480	1,503	42%	3,619	Number of Facilities
	Remediation Complete	6,747	6,868	65%	10,547	Number of Release Sites
	Geographic Sites Eliminated	89	91	84%	108	Number of Sites

Strengthening the Foundation of our Future:

Investments to Maximize Risk Reduction

FY 2008 and FY 2009 Key Accomplishments

- Tank Waste Processing
  - The overall Waste Treatment and Immobilization facility at Hanford will be 56% complete by the end of FY 2009
  - Continue construction of the Sodium Bearing Waste facility at Idaho and the Salt Waste Processing facility at Savannah River
  - Grouted and closed 7 underground tanks at Idaho
- Consolidation and Disposition of Surplus Plutonium, Spent Nuclear Fuel, and Uranium
  - Begin disposition of surplus non-pit plutonium at Savannah River in FY 2008
  - Complete consolidation of Hanford special nuclear material at Savannah River in FY 2009
  - Complete K West sludge containerization at Hanford in FY 2008
  - Complete all wet to dry spent fuel transfers at Idaho by the end of FY 2009
  - Complete construction and start operations of Depleted Uranium Hexafluoride (DUF6) Conversion Facilities at Portsmouth and Paducah by the end of FY 2009
  - Finalize the design for Uranium 233 blend down equipment and building 3019 modifications at Oak Ridge by the end of FY 2009

FY 2008 and FY 2009 Key Accomplishments (cont.)

- Disposition of Legacy Waste
  - Obtain RH and CH TRU waste certification at Oak Ridge in FY 2008 and begin shipping to the Waste Isolation Pilot Plant (WIPP)
  - Complete shipment of all TRU legacy drums at Savannah River to WIPP for disposal in FY 2008
  - Complete shipment of all EM RH TRU waste at Idaho to WIPP in FY 2008
  - Complete disposition of all legacy low-level, mixed low-level waste, and TSCA waste at Paducah in FY 2009
- Soil and Groundwater remediation and D&D
  - Upgrade groundwater remediation approach for hexavalent chromium at Hanford in FY 2009
  - Complete Environmental Impact Statement for the Energy Technology and Engineering Center (ETEC)
  - Complete D&D of Test Area North at Idaho in FY 2008
  - Begin demolition of K-25 processing facility in Oak Ridge in FY 2009
  - Complete demolition of K-East basin at Hanford in FY 2009
- Plan 4 site cleanup completions in FY 2008 and an additional 2 in FY 2009

FY 2009 Request – Summary by State

(dollars in thousands)

State	EM FY 2009 Congressional Request [a/]	DOE FY 2009 Congressional Request [b/]
California	17,603	2,217,903
Colorado	9,302	575,676
Idaho	447,400	1,205,409
Illinois	459	955,835
Kentucky	153,433	157,946
Nevada	69,354	806,815
New Mexico	396,630	4,155,703
New York	82,933	1,017,696
Ohio	320,444	376,840
South Carolina	1,390,693	2,258,948
Tennessee	464,872	2,517,332
Utah	30,513	73,527
Washington	1,981,096	2,419,217
Washington, DC	165,030	3,890,867
Sub-Total	5,529,762	
PY Offset Defense	-1,109	0
PY Offset Non-Defense	-653	0
Total	5,528,000	26,648,562

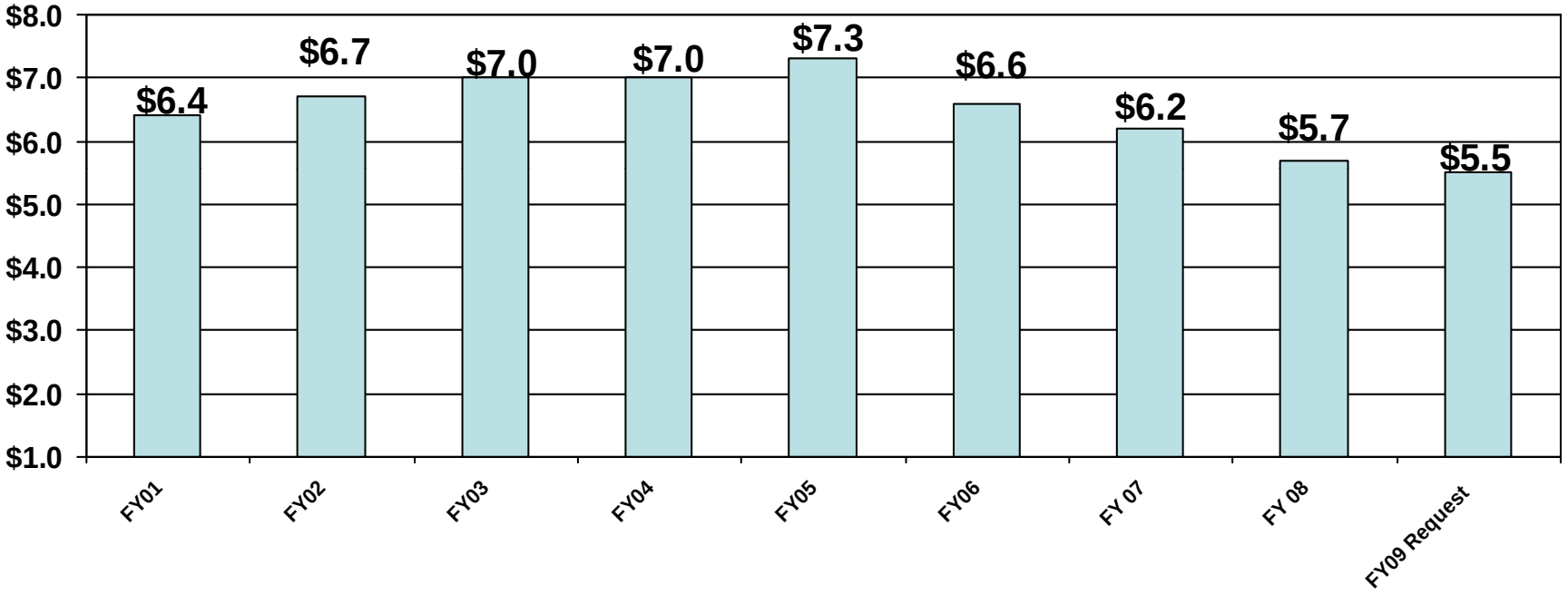
[a/] State Distribution includes funding for Program Direction and Safeguards and Security activities.

[b/] Excludes States with no EM presence, but total reflects all states funding.

Strengthening the Foundation of our Future:

Investments to Maximize Risk Reduction

EM Budget History



Strengthening the Foundation of our Future:

Investments to Maximize Risk Reduction

FY 2009 Budget Request Distribution